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| 10/762,824      | 01/21/2004  | Shoichi Nomura       | 04027/LH            | 6193             |

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[REDACTED] EXAMINER

ABDI, AMARA

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                 |               |
|------------------------------|-----------------|---------------|
| <b>Office Action Summary</b> | Application No. | Applicant(s)  |
|                              | 10/762,824      | NOMURA ET AL. |
| Examiner                     | Art Unit        |               |
| Amara Abdi                   | 2624            |               |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 24 August 2007.
- 2a) This action is **FINAL**.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-18 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-18 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 21 January 2004 is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date See Continuation Sheet.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_.

Continuation of Attachment(s) 3. Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :12/20/2004  
08/17/2007.

**DETAILED ACTION**

1. Applicant's response to the last office action, filed August 24, 2007 has been entered and made of record.
2. In view of the Applicant amendments, the objections to the specification are expressly withdrawn.
3. In view of the Applicant amendments, the objections to the claims 13-15 are expressly withdrawn.
4. In view of the Applicant amendments, the rejection of claim 6 under 35 U.S.C 112 is expressly withdrawn.
5. In view of the Applicant amendments, the rejection of claim 8 under 35 U.S.C 101 is expressly withdrawn.
6. Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection.
7. The indicated allowability of claims 7 and 8 is withdrawn in view of the newly discovered reference(s) to claims 7 and 8. Rejections based on the newly cited reference(s) follow.

**Claim Rejections - 35 USC § 103**

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-8, and 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada (US 5,038,223) in view of Toyoda et al. (US 6,700,680), and Kishida et al. (EP 0 424 920).

**(1) Regarding claims 1, 17, and 18:**

Yamada discloses an image processing method and apparatus (column 2, line 16), and computer readable storage medium having stored thereon a computer program (column 6, line 11-12) comprising the steps of:

obtaining input image information including input image data from an input device (column 6, line 17-20);

dividing the input image data into plural subject image data corresponding to the discriminated plural subject images (Fig. 5, Page 4, line 11-14, and Fig 8, Page 5, line 44-45), (the separating of image into two is read as the same concept as the dividing of the input image data into plural subject image data) ; and

processing the input image data of the plural subject images (column 6, line 60-66), (the thickening processor is read as the concept as the processing of the input image data) as to output image data (column 6, line 17).

Yamada do not explicitly mention the following items:

- 1) determining a processing method for the input image data of the plural subject images; and
- 2) discriminating plural subject images existing in the input image data, and obtaining a relationship among the plural subject images.

**(A) Concerning the item 1):**

Toyoda et al., in analogous environment, teaches an image formation apparatus, where determining the processing method for the input image data (column 8, line 39-44), (it is read that the processing method is prepared as a table).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Toyoda et al., where determining the processing method for the input image data, in the system of Yamada in order to simplify the gradation converting process and realize a high processing speed (column 2, line 64-65).

**(B) Concerning the item 2):**

Kishida et al., in analogous environment, teaches a method and apparatus of obtaining tone curve, where discriminating plural subject images existing in the input image data (Fig. 4, Page 4, line 4-6), (the discriminating of plural subject images is read as the same concept as arranging items for different images), and obtaining a relationship among the plural subject images (Fig. 5, Page 4, line 19-22), (the obtaining of relationship between weights is read as the same concept as the obtaining of a relationship among the plural subject images).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Kishida et al., where discriminating plural subject images, in the system of Yamada in order to obtain a tone curve suitable for expressing the gradation of a selected image region more appropriately than other image regions (Page 2, line 54-55, and Page 3, line 1).

**(2) Regarding claim 2:**

Yamada discloses all the subject matter as described in claim 1 above.

Yamada does not explicitly mention the method, where determining a respective processing method for each subject image data based on respective relevant information regarding each subject image.

Toyoda et el., in analogous environment, teaches an image formation apparatus, where determining a respective processing method for each subject image data (column 8, line 39-41), (the pixel is read an a subject image) based on respective relevant information regarding each subject image (column 8, line 45-48), (it is read that the table is providing information for each image data (pixel)).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Toyoda et el., where determining a respective processing method for each subject image data, in the system of Yamada in order to simplify the gradation converting process and realize a high processing speed (column 2, line 64-65).

**(3) Regarding claim 3:**

Yamada discloses all the subject matter as described in claim 2 above.

Yamada does not explicitly mention the method, where the respective relevant information regarding each subject image includes priority order information set for each subject image.

Kishida et al., in analogous environment, teaches a method and apparatus of obtaining tone curve, where each subject image includes priority order information set for each subject image (Page 4, line 23-25).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Kishida et al., where each subject image includes priority order information set for each subject image, in the system of Yamada in order to obtain a tone curve suitable for expressing the gradation of a selected image region more appropriately than other image regions (Page 2, line 54-55, and Page 3, line 1).

**(4) Regarding claim 4:**

Yamada discloses all the subject matter as described in claim 3 above.

Yamada does not explicitly mention the method, where the priority order information is set in accordance with a kind of each subject image.

Kishida et al., in analogous environment, teaches a method and apparatus of obtaining tone curve, where the priority order information is set in accordance with a kind of each subject image (Page 4, line 24).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Kishida et al., where the priority order information is set in accordance with a kind of each subject image, in the system of Yamada in order to obtain a tone curve suitable for expressing the gradation of a selected image region more appropriately than other image regions (Page 2, line 54-55, and Page 3, line 1).

**(5) Regarding claim 5:**

Yamada discloses all the subject matter as described in claim 3 above.

Yamada does not explicitly mention the method, where the priority order information includes a weighting value set in accordance with a degree of importance of each subject image.

Kishida et al., in analogous environment, teaches a method and apparatus of obtaining tone curve, where the priority order information includes a weighting value set in accordance with a degree of importance of each subject image (Page 4, line 23 and line 25).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Kishida et al., where the priority order information includes a weighting value set, in the system of Yamada in order to obtain a tone curve suitable for expressing the gradation of a selected image region more appropriately than other image regions (Page 2, line 54-55, and Page 3, line 1).

**(6) Regarding claim 6:**

Yamada further discloses the method (column 2, line 16), where the dividing comprises an image extraction process to extract the plural subject images from the input image data (column 7, line 63-68), and where the respective relevant information includes image pattern information regarding each extracted subject image (column 9, line 57-59).

**(7) Regarding claim 7:**

Yamada discloses all the subject matter as described in claim 6 above.

Yamada does not explicitly mention the method, where the image information includes sub-priority order information set for subject image in accordance with how each subject image exists in an image area of the input image data, and where the priority order information is corrected by the sub-priority order information

Kishida et al., in analogous environment, teaches a method and apparatus of obtaining tone curve, where the image information includes sub-priority order information set for subject image in accordance with how each subject image exists in an image area of the input image data (Page 4, line 23-25), (the sub-priority is read as the same concept as the priority), and where the priority order information is corrected by the sub-priority order information (Page 4, line 25-27), (the calculating of the curve appropriate to the original image is read as the same concept as the correcting of the priority order information).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Kishida et al., where the image information includes sub-priority order information set for subject image (the sub-priority is read as the same concept as the priority), in the system of Yamada in order to obtain a tone curve suitable for expressing the gradation of a selected image region more appropriately than other image regions (Page 2, line 54-55, and Page 3, line 1).

**(8) Regarding claim 8:**

Yamada discloses all the subject matter as described in claim 7 above.

Yamada does not explicitly mention the method, where the sub-priority is set in accordance with at least one of an occupation ratio of each subject image to the image area and a location of each subject image on the image area.

Kishida et al., in analogous environment, teaches a method and apparatus of obtaining tone curve, where the sub-priority (Page 4, line 23-25), (the sub-priority is read as the same concept as the priority) is set in accordance with at least one of an occupation ratio of each subject image to the image area and a location of each subject image on the image area (Page 5, line 12-16).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Kishida et al., where the sub-priority is set in accordance with at least one of an occupation ratio (the sub-priority is read as the same concept as the priority), in the system of Yamada in order to obtain a tone curve suitable for expressing the gradation of a selected image region more appropriately than other image regions (Page 2, line 54-55, and Page 3, line 1).

**(9) Regarding claim 13:**

Yamada further discloses the method (column 2, line 16), where when each subject image comprises plural unit images (column 5, line 24-25), the image extracting process extracts the plural unit images (column 2, line 63-66) and detects an existence situation of each subject image from connecting conditions among the plural unit images (column 4, line 9-11).

**(10) Regarding claim 14:**

Yamada discloses the method (column 2, line 16), where the image extracting process comprises inputting on the screen on which the input image data is indicated the location of each of the plural unit images (column 2, line 32-34), (it is interpreted that the customer will appoint an area via the input device such as keyboard, and since the extracted process is based on the appointed area, that means that the image extracted device is conducted by the input device), and extracting the plural subject images from the input image data based on the image pattern information(column 2, line 32-34).

Yamada does not explicitly mention the method, where obtaining connecting relation information among all of the extracted plural unit images, and determining the subject image information from the connecting relation information.

Toyoda et el., in analogous environment, teaches an image formation apparatus, where obtaining relation between pixels areas and the threshold (column 7, line 40-43), (the obtaining of relation between pixels areas and the threshold is read as the same concept as the obtaining of relation information among all of the extracted plural unit images), and determining subject image information from the connecting relation information (column 8, line 39-44), (it is read that the processing method is prepared as table).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Toyoda et el., where obtaining connecting relation information among all of the extracted plural unit images, in the system of

Yamada in order to simplify the gradation converting process and realize a high processing speed (column 2, line 64-65).

**(11) Regarding claim 15:**

Yamada discloses the method (column 2, line 16), where the obtaining of the input image information comprises selecting a set of input image input data from plural sets of input image data (column 2, line 4-7), wherein the image extracting process obtains the subject image information (column 2, line 33-34), (the subject image information is read as the appointed area).

Yamada does not explicitly mention the method, where the subject image information including the connecting relation information from the selected set of input image data, and wherein the image processing is conducted for the other sets input image data by applying the image pattern information to the other sets of input image data.

Toyoda et al., in analogous environment, teaches an image formation apparatus, where the subject image information including the connecting relation information from the selected set of input image data (column 7, line 40-43), and wherein the image processing is conducted for the other sets input image data by applying the image pattern information to the other sets of input image data (column 8, line 39-44), (the processing for the other sets is read as the same concept as the processing method of claim 1).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Toyoda et al., where the subject image

information including the connecting relation information from the selected set of input image data, in the system of Yamada in order to simplify the gradation converting process and realize a high processing speed (column 2, line 64-65).

**(12) Regarding claim 16:**

Yamada further discloses the method, where the image extracting process extracts the plural subject images in relation to customer information (column 2, line 32-34), (it is interpreted that the extracting process has a relation with the customer information, since the area is appointed by the customer, and because the extracting information is based on the original image data on the appointed area).

10. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada, Toyoda et al., and Kishida et al., as applied to claim 1 above, and further in view of Sakuyama et al. (US 6,226,011).

**(1) Regarding claim 9:**

Yamada, Toyoda et al., and Kishida et al. disclose all the subject matter as described in claim 1 above.

Yamada, Toyoda et al., and Kishida et al. do not explicitly mention the method, where the plural subject images in the input image data are discriminated in accordance with scene attribution of the input image data.

Sakuyama et al., in analogous environment, teaches a color conversion method for a color machining, where the plural subject images in the input image data are

discriminated in accordance with scene attribution of the input image data (column 16, line 60-67).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Sakuyama et al., where the plural subject images in the input image data are discriminated in accordance with scene attribution of the input image data, in the system of Yamada in order to perform a color matching process which can respond to a type of object to be processed on the printer drive side (column 2, line 11-14).

**(2) Regarding claim 10:**

Yamada, Toyoda et al., and Kishida et al. disclose all the subject matter as described in claim 9 above.

Yamada, Toyoda et al., and Kishida et al. do not explicitly mention the method, where the input image information includes the scene attribution as additional information.

Sakuyama et al., in analogous environment, teaches a color conversion method for a color machining, where the input image information includes the scene attribution as additional information (column 16, line 66-67), (the adding of the attribute information to the object is read as the same concept as the including if the scene attribution as an additional information in the input image).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Sakuyama et al., where the input image information includes the scene attribution as additional information, in the system of

Yamada in order to perform a color matching process which can respond to a type of object to be processed on the printer drive side (column 2, line 11-14).

11. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada, Toyoda et al., and Kishida et al., and Sakuyama et al., as applied to claim 9 above, and further in view of Nozaki (US-PGPUB 2001/0052996).

**(1) Regarding claim 11:**

Yamada, Toyoda et al., and Kishida et al., and Sakuyama et al., disclose all the subject matter as described in claim 9 above.

Yamada, Toyoda et al., and Kishida et al., and Sakuyama et al. do not explicitly mention the method, where the input device inputs the scene attribution of the input image data.

Nozaki, in analogous environment, teaches a photo printing method and system using a plurality of printers, where the input device inputs the scene attribution of the input image data (paragraph [0048], line 3-6).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Nozaki, where the input device inputs the scene attribution of the input image data, in the system of Yamada in order to realize efficient processing by reducing the idle time, compared with the case of transmitting data after fully completing printing of a preceding order (paragraph [0012], line 7-11).

**(2) Regarding claim 12:**

Yamada, Toyoda et al., and Kishida et al., and Sakuyama et al., disclose all the subject matter as described in claim 9 above.

Yamada, Toyoda et al., and Kishida et al., and Sakuyama et al. do not explicitly mention the method, where the priority order information is set in accordance with the scene attribution of the input image data.

Nozaki, in analogous environment, teaches a photo printing method and system using a plurality of printers, where the priority order information is set in accordance with the scene attribution of the input image data (paragraph [0048], line 1-8, and paragraph [0050], line 1-7).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Nozaki, where the priority order information is set in accordance with the scene attribution of the input image data, in the system of Yamada in order to output the image information in an order of higher priority to one of the printers in a state for accepting printing data (paragraph [0011], line 2-5).

**Conclusion**

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

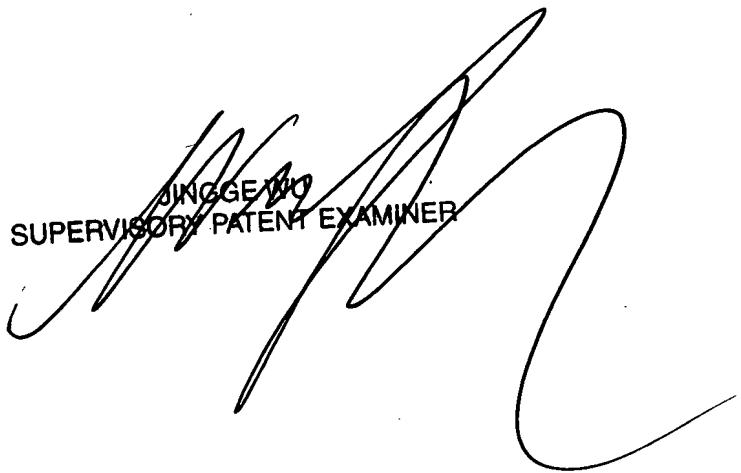
mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

**Contact Information:**

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amara Abdi whose telephone number is (571) 270-1670. The examiner can normally be reached on Monday through Friday 7:30 Am to 5:00 PM E.T..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wu Jingge can be reached on (571) 272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

JINGGE WU  
SUPERVISORY PATENT EXAMINER



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Amara Abdi  
10/22/2007